



SDMS DocID

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REPORT

# Engineering Evaluation Cost Analysis Work Plan

68th Street Landfill Site  
Rosedale, Maryland

Prepared for:  
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July 11, 2007


REPORT

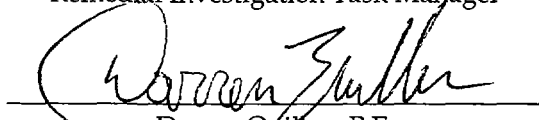
# Engineering Evaluation Cost Analysis Work Plan

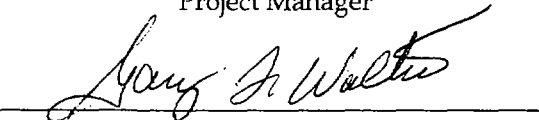
68<sup>th</sup> Street Landfill Site  
Rosedale, Maryland

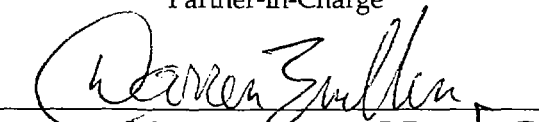
July 11, 2007

ERM Project No.: 0049608

  
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# RESPONSE TO COMMENTS

## ENGINEERING EVALUATION COST ANALYSIS WORK PLAN 68<sup>TH</sup> STREET LANDFILL SITE JULY 11, 2007

Responses to comments issued by the U.S. Environmental Protection Agency (USEPA)-Region III and the Maryland Department of the Environment (MDE) relative to the Engineering Evaluation Cost Analysis Work Plan (EE/CA) are presented herein. Each comment is presented verbatim in *italics* with a direct response to the comment immediately below. The responses have been incorporated in the revised EE/CA as denoted herein.

### USEPA-REGION III

1. *Section 3.1 The extent of contamination and the specific objectives of the EE/CA Work Plan are discussed on pages 4 and 5 of the report. Since surface soil is the only environmental medium being addressed by the WP, a statement should be added to the report to indicate that other media (such as subsurface soil and groundwater) will be characterized during the Remedial Investigation.*

#### Response:

The following text has been added to Section 3.1, paragraph 2: "Other media, such as subsurface soil and ground water, will be characterized during the Remedial Investigation. "

2. *Section 3.1 2<sup>nd</sup> para. Note the reduction in environmental risk as well.*

#### Response:

The following text has been added to Section 3.1, paragraph 2: "In addition to directly reducing the human exposure risks by eliminating these POIs, environmental and ecological risks will also be moderated through the removal of COPCs. "

3. *Action Levels for total VOCs (100 ppm), total SVOCs (100 ppm), total PCBS (150 ppm) and total pesticides (50 ppm) are presented on page 6. On page 7 of the report, Action Levels for arsenic (150 ppm), cadmium (10,000 ppm), chromium (30,000 ppm) and lead (4,000 ppm) are provided. Please note that these Actions Levels are based on very limited, short-term exposures to a specific subset of receptors (on-site field staff workers and trespassers). These*

*areas of the site will have to be revisited during the Remedial Investigation following the non-time critical removal action to 1) evaluate potential risks associated with chronic exposures to a broader range of receptors and 2) determine whether soil represents a continuing source of contamination to groundwater.*

**Response:**

The field screening levels have been decreased to further consider those areas exhibiting toxicity thresholds at the mid-range cancer risk of  $1 \times 10^{-5}$  for carcinogenic constituents (i.e., arsenic) and a hazard quotient of 1 for non-carcinogens (i.e., cadmium and chromium). Based on the decreased screening levels the confirmatory sampling has been replaced with calibration sampling to be conducted at 10 percent of the POIs (i.e., nine samples). Those areas which exceed the more stringent field screening criteria will be evaluated to determine the proper removal action alternatives, to be presented in the EE/CA Report.

4. *Section 3.1.2 Pg. 7 1<sup>st</sup> para. Consider modifying the upper-bound cancer risk to further reduce risk during the upcoming Remedial Investigation.*

**Response:**

The cancer risk has been revised in accordance with the response to comment No. 3.

5. *Section 3.2 last para. Include inhalation risk to workers and trespassers. Dust suppression techniques should be employed during upcoming field activities to minimize risk.*

**Response:**

The inhalation of dust has been added as a potential pathway to be addressed.

6. *Figure 3 Modify the Characterization Flow diagram to describe the actions that will be taken if Action Levels are exceeded.*

**Response:**

The Characterization Flow diagram has been revised. If the results from the initial field screening location exceed the established, now lower screening levels, additional field screening will be conducted in an expanded area that could reasonably have been affected by a

contained release (reference Section 3.1.2). Specific removal actions for areas that exceed these screening levels will be identified and addressed in the EE/CA Report.

## INTRODUCTION

On behalf of the 68<sup>th</sup> Street Sites Coalition (the "Coalition"), Environmental Resources Management, Inc. (ERM) has prepared this Engineering Evaluation/Cost Analysis (EE/CA) Work Plan for the 68<sup>th</sup> Street Landfill Site (the "Site") to evaluate specific "Points of Interest" identified during the Site reconnaissance and mapping of environmental features. These Points of Interest (POI) will be evaluated for any short-term response action requirement under the CERCLA Removal Program. The Site is currently being evaluated under an Administrative Settlement Agreement and Order on Consent (ASAOC, CERCLA Docket No. CERC-03-2006-0051 RF), dated April 27, 2006 for a remedial investigation and feasibility analysis (RI/FS). However, a Non-Time Critical Removal Action (NTCRA), as a Superfund Accelerated Cleanup Model (SACM) tool, is under consideration for specific localized areas at the Site that currently exhibit exposed waste or similar materials of unknown hazard potential. A NTCRA would promptly reduce the risk associated with such materials through early action, and would be antecedent to any long-term remedial action determined through the course of the Site-wide RI/FS activities. Consequently, cross-program coordination between the removal and remedial processes would accelerate the reduction of risk for both human and ecological receptors through front-end clean-up activities, while ensuring proper characterization of the Site in conformance with the RI/FS work plans under preparation.

The purpose of this EE/CA Work Plan is to address the characterization of specific Points of Interest located throughout the Site. These POI were identified during the Site reconnaissance and mapping activities conducted in March 2007, as further discussed in Section 3.1. Certain materials were identified throughout the Site at that time that warrant further evaluation; i.e., drums, containers, batteries, and other wastes. After approval of and implementation of this work plan, an EE/CA Report will be prepared to identify the preferred remedial alternative, if any, after collection of the appropriate investigatory information and consideration of alternatives. In support of the final EE/CA Report, this work plan presents the activities and methodology required to obtain the necessary data and information from which an evaluation and review of alternatives can be conducted. The concurrence of the U.S. Environmental Protection Agency (USEPA) with respect to this work plan is herewith sought.



## 1.1

### BACKGROUND

The Site was proposed for listing on the National Priorities List (NPL) in January 1999. After receiving comments on the proposed listing, USEPA conducted supplemental investigations of the Site in 2001, and re-proposed listing the Site on the NPL in April 2003. Subsequently, the Coalition and USEPA voluntarily entered into an ASAO, which became effective May 30, 2006, for the conduct of an RI/FS or equivalent studies at the Site.

The ASAO was executed in the context of the SAS Process, as set forth in USEPA OSWER Directive No. 9208.0-18, dated June 17, 2004. Under the SAS Process, the clean-up of a site should be equivalent to that of similar sites evaluated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) without listing the Site on the NPL, and may include the parcelization of a Site for the implementation of remediation and re-use opportunities.

As one component in the initiation of the RI/FS process, comprehensive Site reconnaissance and mapping activities have been conducted across the entire 270-acre study area, which encompasses both the Site and its environs from an environmental perspective. This exercise identified certain waste-related materials dispersed on the surface of the study area, which are primarily believed to be the result of errant dumping of materials after closure of the Site landfills. Nevertheless, these materials pose a potential threat to the human and natural environment. Consideration of this NTCRA was initiated as a response to addressing this surficial waste issue.

## 1.2

### WORK PLAN ORGANIZATION

The remainder of this work plan is organized as follows:

- *Section 2.0 - Site Description* provides a brief description and overview of the Site.
- *Section 3.0 - Scope of Work* outlines the proposed scope of work associated with identifying materials (i.e., drums, containers, and impacted soil) located at POI for removal.
- *Section 4.0 - Deliverables* presents a list of deliverables for which these components are referenced herein.
- *Section 5.0 - Schedule* presents the schedule for the work associated with the response action associated with the identified materials.
- *Section 6.0 - References* presents the list of documents cited and reviewed for preparation of this work plan.

## SITE DESCRIPTION

The Site, as delineated by USEPA, is an aggregation of the waste disposal areas for five (5) former landfills (designated as "Source Areas" in the ASAOC) separated and/or bounded by adjoining wetland areas and surface waters. This broader study area, to be addressed by the RI/FS, is located immediately south of the Rosedale Industrial Park in Rosedale, Maryland, and is identified on the Baltimore East Quadrangle of the United States Geological Survey (USGS) 7.5 minute map at a latitude of 39°17'30"N and a longitude of 76°31'60"W.

The aggregated Source Areas, which comprise the delineated Site, occupy approximately 150 acres, with approximately 90 percent of that area located within the jurisdictional limits of Baltimore County, and the remaining, approximately 10 percent, located within Baltimore City. The study area is transected in a north-south direction by Interstate Route 95 (I-95) near the western boundary, and is bounded by a railroad to the north, Herring Run and a railroad to the south, and Redhouse Run and Herring Run to the east. The study area is predominately vegetated with a surrounding land use of industrial properties to the north, south, and west, and residential properties to the east (Rosedale Terrace) and northwest (Maryland Manor). Herring Run discharges into the Back River approximately 1,500 feet downstream of the Site. A Site location map is presented on Figure 1.

The Site is comprised of numerous parcels, with various corresponding property owners, upon which disposal activities were conducted at various times. In general, however, Site-wide waste disposal activities occurred between the late 1940s and the early 1970s, and involved the disposal of solid and liquid municipal, industrial, and commercial wastes. Site topography varies from sea level along Herring Run and Moores Run to approximately 80 feet above mean sea level near the Interstate 95 overpass. Historical Site ownership information is summarized by Source Area in the ASAOC.

The focus of this work plan is the mitigation of direct contact potential by humans to surficially exposed on-Site wastes during trespass on the Site. Such exposures may be to several inorganic and organic Constituents of Potential Concern (COPCs). These COPCs have been identified through a review of historical soil analytical results for the Site, as discussed in the Site Wide Program Management Plan (SWPMP), and include the following; volatile organic compounds (VOCs), specifically benzene, tetrachloroethene, and trichloroethylene; semi-volatile organic compounds (SVOCs), specifically polynuclear aromatic hydrocarbons (PAHs); metals, specifically arsenic, chromium, cadmium, and lead; polychlorinated bi-phenyls (PCBs), specifically Aroclors 1242, 1254, and 1260; and pesticides, specifically DDD, DDE, and DDT.

**EXTENT OF CONTAMINATION**

Data from prior Site investigations has been compiled, evaluated and presented in the SWPMP. Additional Site-wide characterization activities will be performed during RI/FS explorations, as required under the ASAO. As a precursor to these field activities, a Site-wide reconnaissance was conducted between February 28 and March 6, 2007 in order to map and document any surficial debris or waste present on a 200-foot grid pattern. Surficial debris and waste was photo-documented, located by GPS coordinates, and flagged in the field. The nature and extent of the all debris observed was recorded, compiled in a database, and categorized as one of the following: seeps, surface water, soil-covered mounds, wells, conveyance/infrastructure, construction and demolition debris (CDD), intact and non-intact drums, other containers, tires, metal scrap, electrical/batteries, crushed glass, household refuse, or other.

This work plan focuses on further evaluating identified, potentially high risk areas at the Site via field screening, sampling, and analysis for determining the appropriate removal action. This evaluation will be specific to exposed or surficial soil and waste materials, only. Other media, such as subsurface soil, groundwater, and surface water/sediment, will be characterized during the Remedial Investigation. Observations from the Site reconnaissance are the basis for identifying the points of interest referenced herein for further evaluation and potential removal actions. By review of the waste categories identified in the Site reconnaissance, the POIs to be addressed include intact and non-intact drums, containers, and electrical/batteries (see Table 1). These wastes were selected as representing the most significant health risk from human exposure to COPCs at the Site. In addition to directly reducing the human exposure risks by eliminating these POIs, environmental and ecological risks will also be moderated through the removal of COPCs. In these categories, 82 POIs, as depicted on Figure 2, were identified. These POIs will be characterized under this work plan using the protocol outlined in the following sections.

The specific objectives of this plan include the following:

- Identify exposed, intact and non-intact drums or other containers with any liquid, solid or gaseous contents;
- Sample and characterize the drum and container contents for disposal facility acceptance purposes;

- Field screen the surficial soils in the vicinity of each POI for VOCs, SVOCs, metals, PCBs, and pesticides;
- Identify those POIs, and the approximate limits where surface soil contamination is associated with each POI, based on field screening techniques; and,
- Identify any new POI from observations during implementation of this work plan.

The following discussion details the technical approach to achieve these objectives. The approach is also graphically depicted on Figure 3. Project control plans and standard operating procedures for implementation of the Site-wide RI have been prepared and presented in the Site-Wide Work Plan (SWWP), dated March 9, 2007. The SWWP will be updated, as necessary, in accordance with any comments resulting from regulatory review by USEPA or the Maryland Department of the Environment (MDE), and applied to any activities performed under this work plan.

### 3.1.1 *Field Observations*

Utilizing the GPS coordinates recorded during the Site reconnaissance activities, each of the 82 POI will be located. Other areas identified during implementation of this work plan will similarly be addressed as POI. Each POI will initially be inspected through visual observation, contact with the exterior of a container, and similar techniques to determine the following:

- the general condition of the area;
- evidence of surface staining;
- integrity of any drums/containers; i.e., dents or holes;
- evidence of drum/container contents and the nature and volume of the contents, if exposed;
- accessibility and clearing requirements for removal, if required; and,
- placarding or other indications of the source and/or generator/owner of the container.

All observations will be recorded in the field notes. Drums/containers with liquid, solid, or soil contents will be sampled as discussed in Section 3.1.4. Any drums/containers that are empty will be so documented and identified for management based on the results of the characterization; i.e., field screening or soil sampling, as discussed below.

*Field Screening of Surface Soils and Materials*

Surface soils and unknown materials will be field screened at each point of interest. Field screening will be conducted for VOCs, SVOCs, metals, PCBs, and pesticides on the surface soils and any unknown materials exhibiting the greatest degree of anthropogenic impact (i.e., staining, oily, iridescence, etc.). The following methods and detection limits will be used for field screening of COPCs:

- Total VOCs: Photo-ionization detector (PID) with 10.6 eV lamp, detection limit of 0.1 part per million (ppm);
- Total SVOCs: Flame-ionization detector (FID), detection limit of 0.1 ppm;
- Metals: Field portable XRF, detection limits (as specified in EPA Method 6200);
- Total PCBs: Immunoassay, detection limit of 1 ppm; and,
- Total Pesticides: Immunoassay, detection limit of 1 ppm.

A surface sample representative of each potential hazard identified at a POI will be collected and field screened for the above parameters. Based on visual observations at each POI; i.e., drum labels, field screening parameters may be reduced to specific, relevant parameters. The field screening result for each parameter group will be reported as the total concentration. Field screening of potential hazards may include a surface soil sample in the immediate vicinity of a drum/container or multiple drums/containers in close proximity. If a POI has various drums/containers that are dispersed over a wide area, multiple field screening samples may be processed.

The field screening results will be compared with pre-determined screening levels. With the exception of metals, these screening levels assume that multiple compounds could be present in each surface soil sample, and that the sum of these compounds is considered. For organic compounds, the pre-determined screening levels are arbitrarily set based on the potential for human exposure to the Site-specific COPCs and the detection limits of the identified field screening methods. For pesticides and PCBs, the toxicity thresholds are set based on the mid-range cancer risk for the most toxic of these COPCs detected at the Site. Using this approach, the pre-determined screening levels for organic compounds are as follows:

- Total VOCs (screened by PID): 50 ppm
- Total SVOCs (screened by FID): 50 ppm
- Total PCBs (screened by immunoassay): 15 ppm
- Total Pesticides (screened by immunoassay): 10 ppm

The XRF analysis will be capable of screening individual metals (specifically arsenic, cadmium, chromium, and lead); thus, field screening results will not represent the total metal concentration. For purposes of deriving the pre-determined screening levels, the toxicity threshold is established at the mid-range cancer risk of  $1 \times 10^{-5}$  for carcinogenic constituents (i.e., arsenic) and a hazard quotient of 1 for non-carcinogens (i.e., cadmium and chromium). For lead, toxicity threshold is based on the USEPA guidance for residential soils (USEPA, 1994). Using this approach, the pre-determined screening levels for metals are as follows:

- arsenic: 10 ppm
- cadmium: 1000 ppm
- chromium: 3000 ppm
- lead: 400 ppm

If the initial field screening sample at a POI is above the pre-determined screening levels for any of the parameters (i.e., VOCs, SVOCs, Metals, PCBs, or pesticides) the screened area will be expanded by 5 feet in each cardinal direction (i.e., N, S, E, and W), and supplemental field screening of the surface soils will be conducted. Based on the results from these four additional locations, an initial delineation of the area of impact will be made.

### 3.1.3

#### *Calibration Sampling*

For the purpose of calibrating the overall precision of the field screening methods employed, soil samples will be collected at 10% of the POIs; i.e., nine samples. These nine soil samples will be selected to be spatially representative of the Site, as determined in the field, and represent generally higher degrees of identified contamination, as possible. These soil samples will be submitted for the following laboratory analysis:

- VOCs: SW846 8260B;
- SVOCs: SW846 8270C;
- TAL Metals: SW846 6010B;
- PCBs: SW846 8080; and,
- Pesticides: SW846 8081B.

### 3.1.4

#### *Drum/Container Contents Characterization*

All intact and non-intact drums and containers determined to retain liquid, solid or gaseous materials will need to be sampled prior to off-site disposal. Sampling protocols will be presented in the EE/CA Report and conducted as part of the NTCRA. All intact and non-intact drums and containers determined to be empty will be characterized for disposal based on the results of the field screening

performed at the POI. Empty drums that are located at a POI where field screening results exceed the screening levels will be managed consistent with materials that exceed those levels. All other empty drums will be disposed as non-hazardous material. All containers will be labeled and staged until their removal from the Site as either hazardous or non-hazardous material. Labeling, staging, and disposal protocol associated with these empty containers will be presented in the EE/CA Report and conducted as part of the NTCRA.

### 3.2

#### **STREAMLINED RISK EVALUATION**

A full, Site-wide risk assessment will be conducted for the RI/FS in accordance with the ASAOC, and as described in the previously submitted Site-Wide Work Plan dated March 9, 2007. Prior to implementation of the field characterization studies specified by the RI/FS Management Area-Specific Work Plans, immediate risks will be evaluated and addressed, via the NTCR; these risks include human health exposures to the COPCs by trespassers and field staff. To determine the POI where exposures may be significant, a streamlined human health risk evaluation will be performed for the collective POI noted herein. This risk evaluation will identify the current potential human health risks that may be manifested by the POI and appropriate to an early action, rather than awaiting the RI/FS remedial action. In accordance with USEPA guidance (USEPA, 1993), this risk evaluation will specifically:

- consider the COPCs identified for the POI as a result of a risk-based screening process;
- describe the types of receptors and plausible exposures to COPCs that may occur;
- provide an assessment of potential health effects (i.e., carcinogenic or non-carcinogenic) associated with these constituents; and,
- project the potential risk to human health at the Site.

Human receptors that would most likely contact COPCs will be limited to on-site field staff workers during the Site characterization activities and trespassers, both of which may be exposed to soil through incidental ingestion, dermal contact or inhalation of fugitive dusts that may be produced during field activities.

Further, the closest residences are located hydraulically up-gradient or cross-gradient of the Site; consequently, no residential impacts are anticipated and, therefore, are not included in this evaluation. The data collected in accordance with the scope-of-work herein will be compared to relevant standards (e.g. ARARs) and risk-based criteria at the Site.

Response action alternatives will be assessed in accordance with Section 2.6 of USEPA's "Guidance on Conducting Non-Time-Critical Removal Action Under CERCLA". This assessment of response action alternatives, the results of the aforementioned field activities, and the streamlined risk assessment will govern the selection and implementation of the appropriate response action. To prepare an effective and efficient sampling program and ensure the collection of pertinent data/information, a range of potential remedial alternatives have been considered to-date. These are based on historical responses at other similar sites, consideration of any future remedial action associated with the RI/FS, USEPA guidance, available technologies, and a general understanding of the Site requirements. The data/information to be collected during the implementation of the field activities has therefore been configured to assure proper evaluation of these specific response action alternatives. Potentially-applicable response action alternatives for the Site, if required, include the following, either singly or in various combinations:

- no action;
- site security and engineering controls; and,
- removal and off-site disposal.

The alternatives ultimately identified will be evaluated in accordance with, and in consideration of the goals of the ASAOC and the EE/CA guidance document. The ability of each alternative to reduce the exposures identified in the human health risk assessment to within the acceptable range will be assessed. Other key evaluation criteria will include technical effectiveness, implementability, and cost. A comparative analysis will be conducted to document the advantages and disadvantages of each alternative with respect to the criteria and each other. The comparative analysis will be used to determine the most appropriate response action alternative, or combination of alternatives, in terms of the evaluation criteria.



**DELIVERABLES**

In accordance with the ASAOC, USEPA's "Guidance on Conducting Non-Time-Critical Removal Action Under CERCLA", and industry-standard project control procedures, various submittals will be prepared for accomplishment of the work associated with the characterization of the POI. The submittals, a description, and status are presented below.

- **EE/CA Work Plan:** The details of the work plan are presented herein.
- **Sampling and Analysis Plan:** The activities discussed herein will be conducted in accordance with the *Field Sampling Plan (FSP)* prepared for the Site (ERM 2007).
- **Health and Safety Plan:** The activities discussed herein will be conducted in accordance with the *Health and Safety Plan (HASP)* prepared for the Site (ERM 2007).
- **Quality Assurance Project Plan:** The activities discussed herein will be completed in accordance with the *Quality Assurance Project Plan (QAPP)* prepared for the Site (ERM 2007).
- **EE/CA Report:** The EE/CA Report will be prepared upon completion of the fieldwork presented herein. The report will consist of three components to effectively characterize the Site and identify the most effective response action alternative. These components will include: 1) results of the field activities; 2) the streamlined risk evaluation; and, 3) a response action alternatives analysis.
- **Final Report:** The final report will be prepared upon completion of the work implementation and will formally notify USEPA that all response action activities associated with the Site have been completed.

## **5.0**

### ***SCHEDULE***

A schedule to conduct the EE/CA, as outlined in this Work Plan, is presented in Figure 4.

**REFERENCES**

Environmental Resources Management, Inc. (ERM), 2007. *Site-Wide Work Plan (SWWP) 68<sup>th</sup> Street Landfill Site*. March 2007.

ERM, 2007. *Risk Assessment Work Plan (RAWP) 68<sup>th</sup> Street Landfill Site*. March 2007.

ERM, 2007. *Quality Assurance Project Plan (QAPP) 68<sup>th</sup> Street Landfill Site*. March 2007.

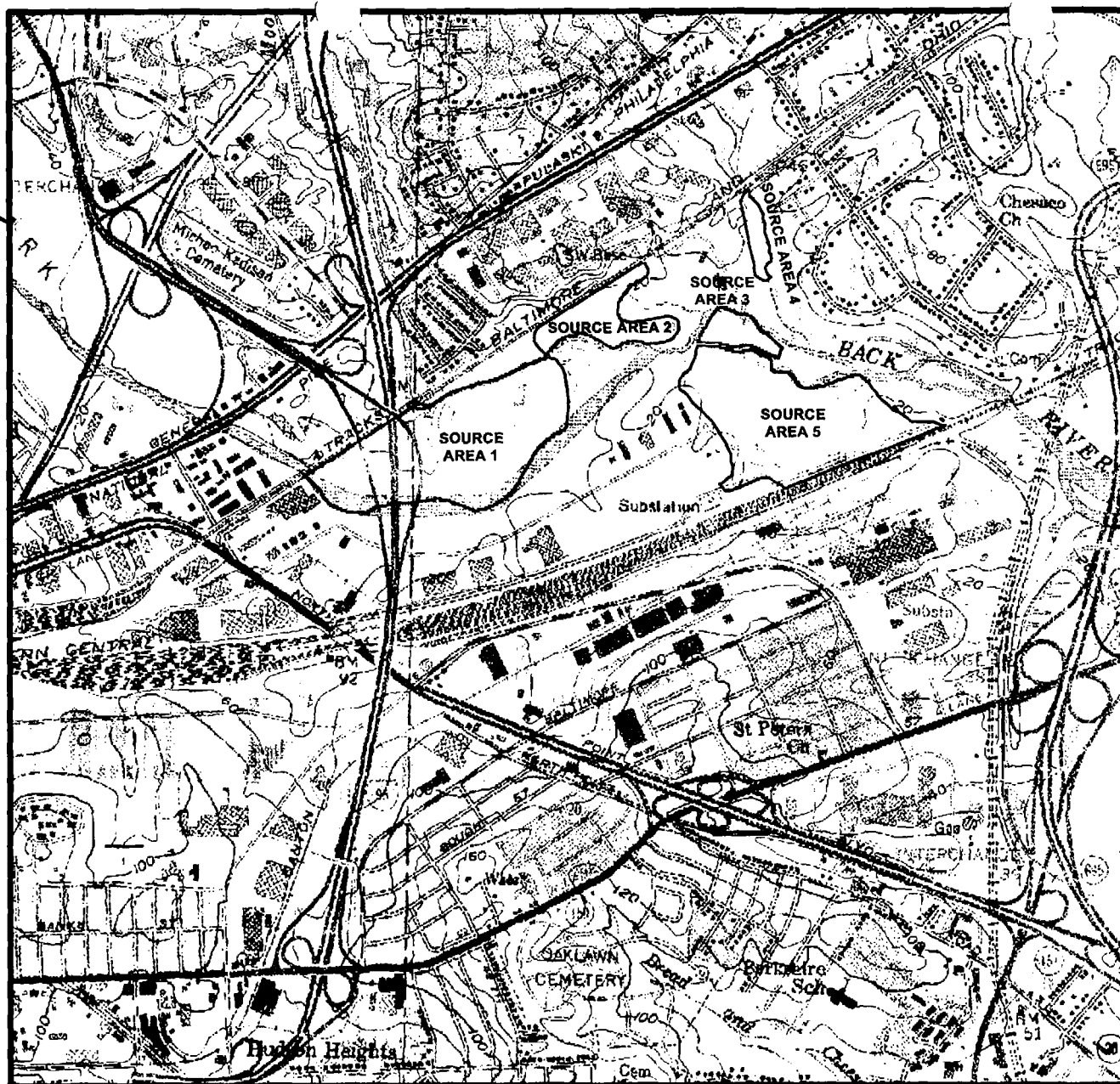
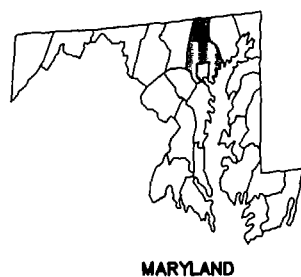
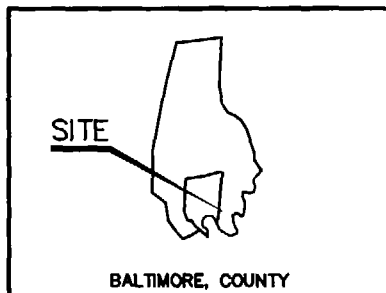
ERM, 2007. *Health and Safety Plan (HASP) 68<sup>th</sup> Street Landfill Site*. March 2007.

ERM, 2007. *Site-Wide Program Management Plan (SWPMP) 68<sup>th</sup> Street Landfill Site*. November 2006.

United States Environmental Protection Agency (USEPA), 1993. *Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA*. EPA540-R-93-057.

United States Environmental Protection Agency (USEPA), 1994. *Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*. OSWER Dir #9355.4-12.

## *Figures*



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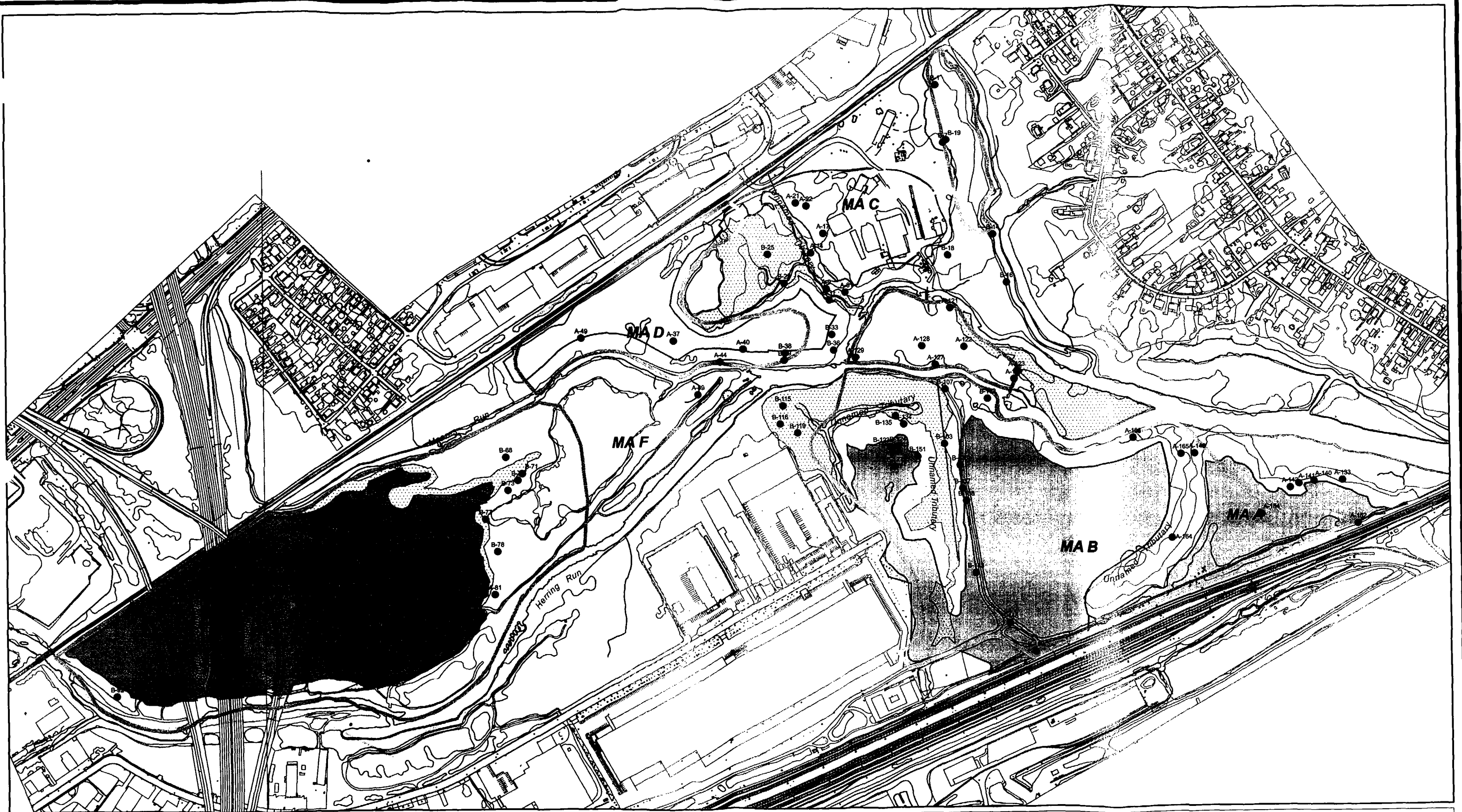


Scale in Feet  
1" = 2,000'

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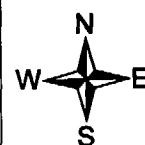
FIGURE 1  
Site Location Map  
68th Street Landfill Site  
Rosedale, Maryland

AR100440



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Scale in Feet  
1" = 500'

500 250 0 500  
Feet

#### Legend

- Point of Interest
- USEPA - Defined Source Area

Developable Area



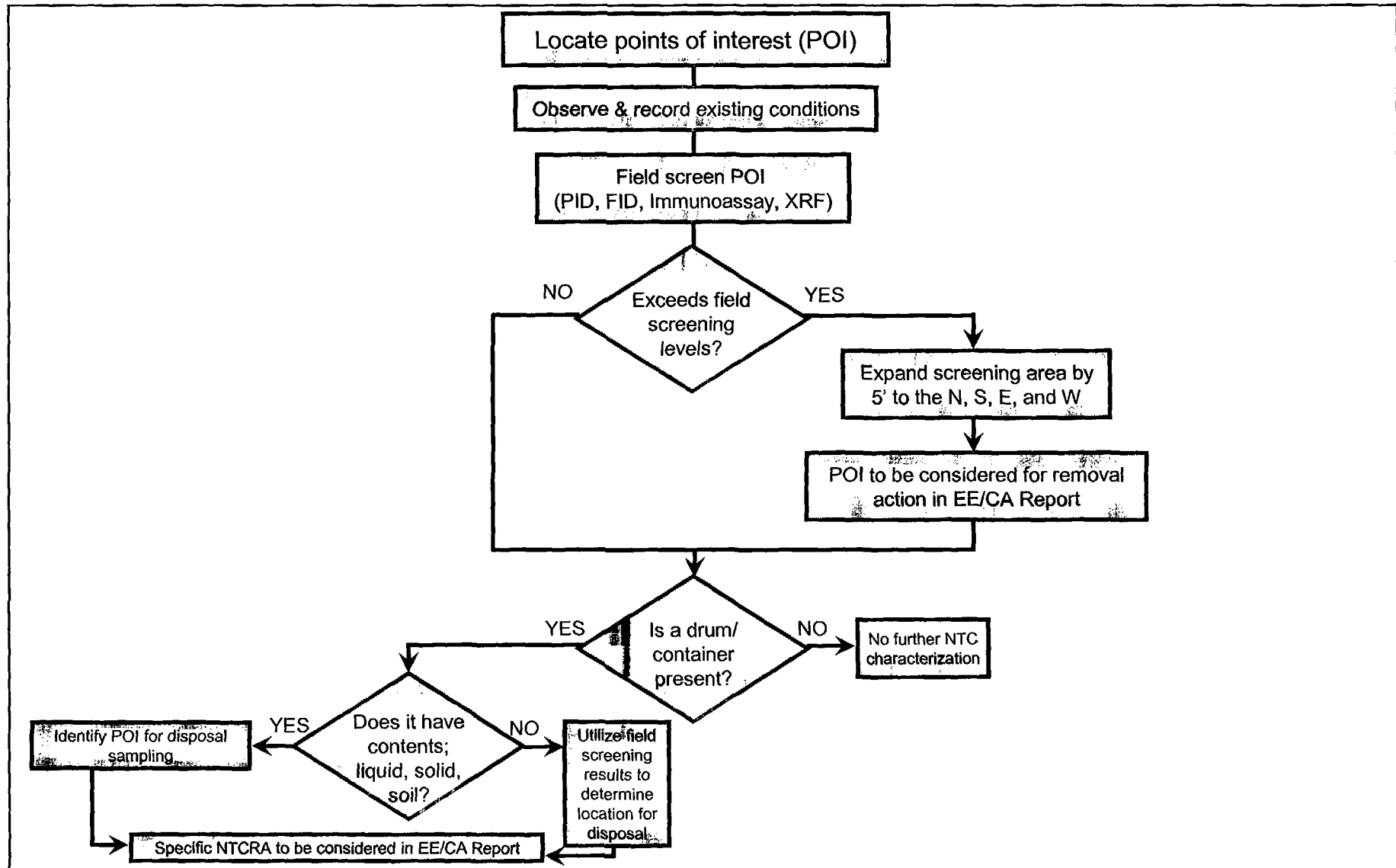
Non Developable Area



**FIGURE 2**  
EE/CA Workplan  
Points of Interest  
68th Street Landfill Site  
Rosedale, Maryland

AR100441

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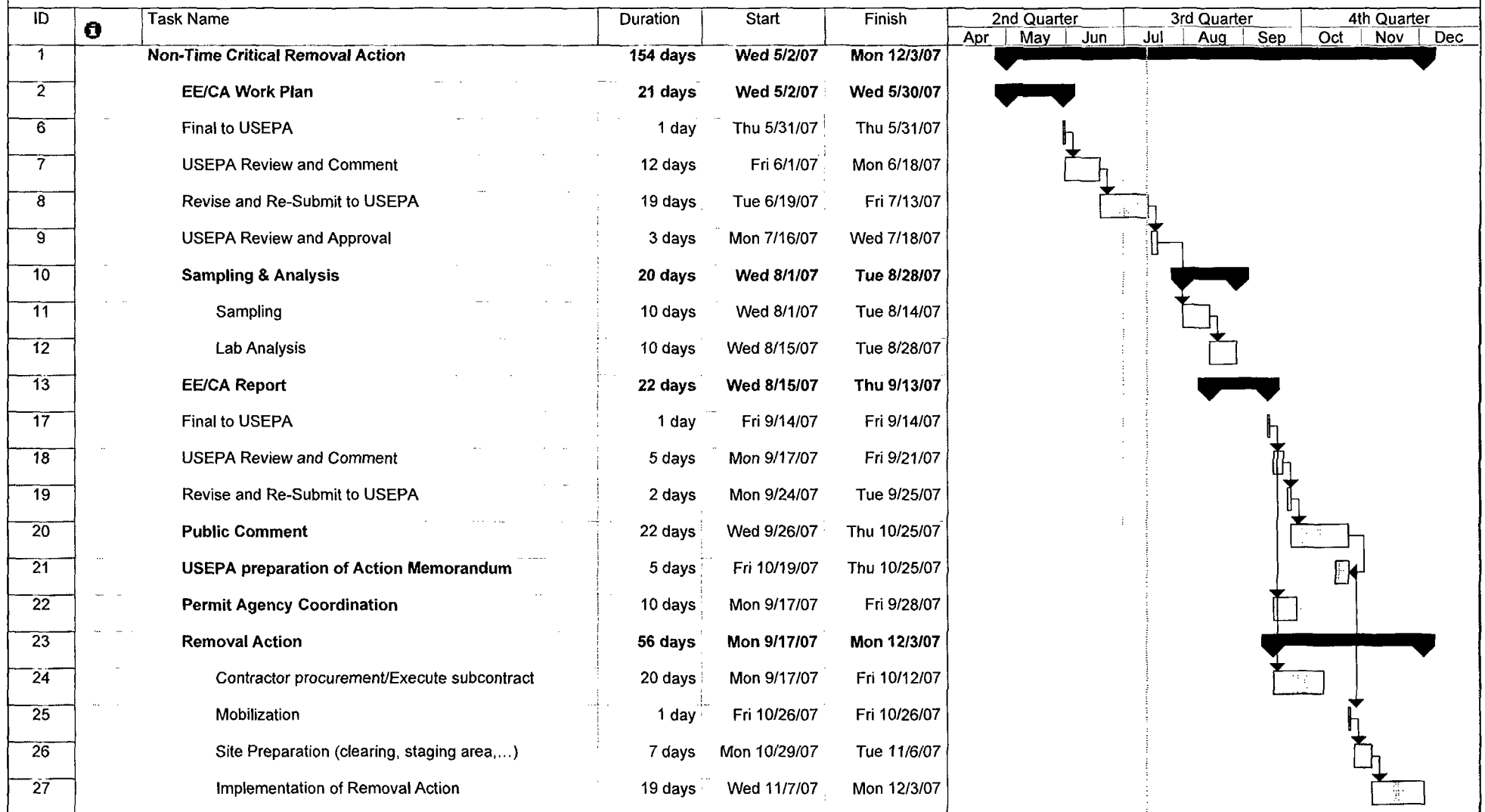


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FIGURE 3  
EE/CA Characterization Flow Diagram  
68<sup>th</sup> Street Landfill Site  
Rosedale, Maryland

**FIGURE 4**  
**Non-Time Critical Removal Action Schedule**  
**68th Street Landfill Site**



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Task

Split

Progress

Milestone

Summary



Project Summary

External Tasks

External Milestone

Deadline





## *Tables*

**Table 1**  
**EE/CA Work Plan Points of Interest**

ID #	Coordinates		Points of Interest Subcategories				Description
	North	West	Intact Drums	Non-Intact Drums	Other Containers	Elect./ Batteries	
A-6	39.30673	76.52219		X		X	tires, wires, drums, paint cans, bucket, scrap metal
A-9	39.30678	76.52256		X			tire, metal drum
A-14	39.30733	76.52286	X	X			55-gal drums (5), tires, red-stained vegetation
A-17	39.30763	76.52262	X				rusted car parts, drum and bucket covered in black material
A-21	39.30810	76.52315		X			mattress, concrete cylinder, couch, drums, plastic trash
A-22	39.30805	76.52294			X		concrete cylinder, wood furniture, fuel tank
A-37	39.30600	76.52562		X			fabric material (carpet), rusted drum lid
A-40	39.30587	76.52422			X		vehicle gas tank, tires (2)
A-44	39.30568	76.52468			X		cylindrical metal container, tires (2), bricks
A-49	39.30607	76.52744			X		propane tank
A-58	39.30309	76.53241		X			rusted drum containing hard black substance
A-62	39.30259	76.53199		X			rusted fridge, concrete slabs, 55-gal drum, drain pipe
A-64	39.30260	76.53156		X			appliances, rusted drum, bricks, concrete rubble, tires
A-70	39.30258	76.53140		X			pile of tires (40), brick rubble, 55-gal drums
A-79	39.30214	76.52982		X			several 55-gal drums scattered around ~20 ft radius
A-81	39.30214	76.52921		X			55-gal drum (1), tires
A-82	39.30182	76.52964		X			flattened rusted drum
A-89	39.30517	76.52514		X			rusted 55-gal drum
A-95	39.30231	76.53139				X	car battery
A-104	39.30133	76.53155	X				uncapped well head, 55-gal drums (2), fridge
A-107	39.30160	76.53157	X	X			55-gal drums (7) scattered around ~10 ft radius
A-112	39.30134	76.53248	X				rusted and smashed car body, blue barrel
A-113	39.30156	76.53245	X				blue barrel
A-121	39.30890	76.51613		X			plastic bottles, concrete block, washed out bridge, rusted drum
A-122	39.30830	76.51587	X				blue barrel on its side (contains liquid)
A-123	39.30792	76.51482		X			remnants of metal drums, scattered tires and litter
A-125	39.30780	76.51488		X			pile of concrete blocks, drum, asphalt
A-127	39.30803	76.51643	X				white plastic barrel
A-128	39.30832	76.51670		X			flattened rusted drum
A-129	39.30815	76.51800					rusted scrap metal
A-133	39.30618	76.50842	X				pile of rusted metal, 55-gal drum, tires (3)
A-140	39.30617	76.50898		X			extensive scattering of debris, tires (~60-80), appliances, drums, shopping cart
A-141	39.30613	76.50928		X			extensive scattering of debris, tires (~60), appliances, drums
A-142	39.30607	76.50945	X				55-gal drums, large camper van, rusted metal debris
A-146	39.30662	76.51133			X		gas canister
A-152	39.30551	76.50812	X				upright 55-gal drum with label: 'flammable liquid'
A-154	39.30567	76.51002				X	car battery, several tires
A-164	39.30532	76.51179		X			corroded 55-gal drums (2)
A-165	39.30661	76.51160	X				tire, rubber barrel
A-166	39.30687	76.51254		X			corroded 55-gal drum in Herring Run
B-1	39.31234	76.51637		X			Two corroded drums
B-7	39.31145	76.51623		X			Rusted shed, drum/tire pile, scrap metal
B-14	39.31003	76.51527	X				Tires (9) in RHR, drum and conc piles
B-16	39.30929	76.51500	X				Tires (20 scattered), drums (3), 50'x200' pond area
B-18	39.30971	76.51616	X				Tires (4), drums (2)
B-19	39.31149	76.51617	X				Drum, metal, general refuse
B-25	39.30975	76.51971	X				Drum, 4" PVC pipe (60' long)
B-29	39.30930	76.51939		X			Tires (7), corroded drum
B-31	39.30904	76.51851		X			rubber/ drum remains, scattered tires

\* Non-intact drums include drum carcasses, corroded drums, drums with holes intact drums with no lid.

**Table 1**  
**EE/CA Work Plan Points of Interest**

ID #	Coordinates		Points of Interest Subcategories				Description
	North	West	Intact Drums	Non-Intact Drums	Other Containers	Elect./ Batteries	
B-33	39.30851	76.51847		X			tires (2), drum remains
B-36	39.30827	76.51844		X			partially buried tires (3), drum remain, roofing material
B-38	39.30823	76.51940	X				tires (7), bottles, drums (2), 5-gallon can
B-39	39.30812	76.51941		X			tire, drum remain, metal, general refuse
B-59	39.30604	76.52764	X				55-gallon drum, tires (2), metal items
B-62	39.30645	76.52715	X				55-gallon drum, metal scraps, tires (2)
B-68	39.30668	76.52497	X				55-gallon drums, tires (2)
B-71	39.30642	76.52464	X				55-gallon drums (6), tires (6), cinder blocks, brick, clay pipe, metal
B-72	39.30632	76.52473	X				55-gallon drums (3), tires (11), box spring, metal/ conc.
B-73	39.30617	76.52493	X				55-gallon drum, tire
B-75	39.30607	76.52535		X			drum remains (2), metal item, tires (2)
B-76	39.30591	76.52555		X			drum remains (5), tires (15), metal item, conc/brick rubble
B-77	39.30573	76.52538		X			drum remains (2)
B-78	39.305225	76.52515	X			X	tires (3), car body, conc cylinders (3' DIA), general debris, 55-gallon drum, metal, wire
B-92	39.30307	76.53271		X			metal, metal pipe (1" DIA), drum remains
B-93	39.30441	76.53231			X		oil tank, metal appliances, orange seep in roadway
B-103	39.30681	76.51628	X				Drum, tire
B-107	39.30765	76.51625	X				Large pile of rubble conc pipe, metal appliances, 20-gallon drum (3 - not empty), mattresses, tires (10), misc.
B-112	39.30750	76.51541	X				Tires (3), barrel
B-115	39.30742	76.51945		X	X		250-gallon oil tank, metal scraps, drum remains
B-116	39.30714	76.51951	X				55-gallon drum, (10) 5-gallon buckets, cinder blocks, conc
B-119	39.30700	76.51917		X			Scattered partially overgrown drum remains, tires (5), metal
B-123	39.30677	76.51734		X			Flattened drum
B-124	39.30678	76.51719		X			Buried flattened drums
B-127	39.30647	76.51726	X				blanket, 55-gallon drum, tires (2), metal
B-134	39.30712	76.51707		X			Drum remains, metal, tire (large area of scattered protruding
B-135	39.30725	76.51723	X				Tires (3), rubber matting, 55-gallon barrel
B-136	39.30648	76.51598	X				(2) 55-gallon drums, wood spread along road edge
B-137	39.30612	76.51593	X				(4) 55-gallon drums, metal item
B-138	39.30593	76.51586	X				Blue plastic, 55-gallon drum
B-143	39.30482	76.51569	X				(5) 55-gallon drums, wire mesh
B-145	39.30404	76.51503	X				Pile of dry wall, 55-gallon drum, tires (15)
B-151	39.30662	76.51681	X				Tires (40) spread over large pond area, 55-gallon drum, scrap
B-169	39.30360	76.51452		X			Corroded drum

\* Non-intact drums include drum carcasses, corroded drums, drums with holes intact drums with no lid.